<u>AMENDMENTS TO THE CLAIMS</u>

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Original) A method of communications from a piconet, comprising:
engaging in intra-piconet communications;
receiving a pilot signal from a foreign terminal;
determining that the strength of the pilot signal is below a threshold; and
establishing a peer-to-peer connection with the foreign terminal.

2.   (Original) The method of claim 1 further comprising exchanging messages with the foreign terminal in response to the determination that the pilot signal is below the threshold.

3.   (Original) The method of claim 2 wherein the exchanged messages comprise a transmission to the foreign terminal including a list of a plurality of terminals in the piconet.

4.   (Original) The method of claim 3 wherein the foreign terminal is a member of a remote piconet, and wherein the exchanged messages comprise receiving from the foreign terminal including a list of a plurality of terminals in the remote piconet.

5.   (Original) The method of claim 4 further comprising mapping the list of terminals in the remote piconet to the foreign terminal.

6.   (Original) The method of claim 1 wherein the establishment of the peer-to-peer connection comprises negotiating a data rate and transmission power level.

7.   (Original) The method of claim 6 wherein the establishment of the peer-to-peer connection further comprises negotiating code to spread peer-to-peer communications.

8.   (Original) The method of claim 1 further comprising listening for a transmission from the foreign terminal when not engaged in the intra-piconet communications.

9.   (Original) The method of claim 8 wherein the transmission is received while listening for it, the method further comprising forwarding the received transmission to a terminal within the piconet.

10.   (Original) The method of claim 9 further comprising receiving instructions to engage in the intra-piconet communications during a first time period and to forward the received transmission to the terminal in a second time period.

11.   (Original) The method of claim 10 wherein the first time period is different from the second time period.

12.   (Original) The method of claim 9 further comprising spreading the received transmission with a code.

13.   (Original) The method of claim 9 further comprising providing feedback to the foreign terminal acknowledging that the transmission from the foreign terminal was received.

14.   (Original) The method of claim 1 further comprising receiving a transmission from a terminal within the piconet, and forwarding the received transmission to the foreign terminal.

15.   (Original) The method of claim 14 further comprising receiving instructions to engage in the intra-piconet communications during a first time period, receiving the transmission from the terminal in a second time period, and forwarding the received transmission to the foreign terminal in a third time period.

16.   (Original) The method of claim 15 wherein the first, second and third time period are all different from one another.

17.   (Original) The method of claim 14 wherein the received transmission is spread with a first code, the method further comprising despreading the received transmission with the first code and spreading the received transmission with a second code.

18.   (Original) The method of claim 14 further comprising receiving feedback from the foreign terminal indicating that the received transmission forwarded to the foreign terminal was received by the foreign terminal.

19.   (Original) The method of claim 14 wherein the forwarding of the received transmission to the foreign terminal comprises transmitting the received transmission to the foreign terminal a plurality of times.

20.   (Original) A communications terminal configured to operate in a piconet, comprising:
        a receiver configured to detect a pilot signal from a foreign terminal and determine its strength; and
        a controller configured to establish a peer-to-peer connection with the foreign terminal to support communications if the pilot signal strength is below a threshold, the controller further being configured to support intra-piconet communications.

21.   (Original) The communications terminal of claim 20 wherein the controller is further configured to exchange messages with the foreign terminal if the pilot signal strength is below the threshold.

22.   (Original) The communications terminal of claim 21 wherein the controller is further configured to generate a list of a plurality of terminals in the piconet for transmission to the foreign terminal as part of the exchanged messages.

23.   (Original) The communications terminal of claim 22 wherein the controller is further configured to receive from the foreign terminal operating in a remote piconet a list of a plurality of terminals in the remote terminal as part of the exchanged messages.

24.   (Original) The communications terminal of claim 23 wherein the controller is further configured to map the list of terminals in the remote piconet to the foreign terminal.

25.   (Original) The communications terminal of claim 20 wherein the controller is further configured to establish the peer-to-peer connection by negotiating a data rate and transmission power level.

26.   (Original) The communications terminal of claim 25 wherein the controller is further configured to establish the peer-to-peer connection by negotiating code to spread peer-to-peer communications.

27.   (Original) The communications terminal of claim 20 wherein the controller is further configured to detect a transmission from the foreign terminal when it is not engaged in the intra-piconet communications.

28.   (Original) The communications terminal of claim 20 wherein the controller is further configured to forward the detected transmission to a terminal within the piconet.

29.   (Original) The communications terminal of claim 28 wherein the controller is further configured to receive instructions to engage in the intra-piconet communications during a first time period and to forward the detected transmission to the terminal in a second time period.

30.   (Original) The communications terminal of claim 29 wherein the first time period is different from the second time period.

31.   (Original) The communications terminal of claim 29 further comprising a transmitter configured to spread the detected transmission with a code.

32.   (Original) The communications terminal of claim 28 wherein the controller is further configured to provide feedback to the foreign terminal acknowledging that the transmission from the foreign terminal was detected.

33.   (Original) The communications terminal of claim 20 wherein the controller is further configured to receive a transmission from a terminal within the piconet, and forward the received transmission to the foreign terminal.

34.   (Original) The communications terminal of claim 33 wherein the controller is further configured to receive instructions to engage in the intra-piconet communications during a first time periods, receive the transmission from the terminal in a second time period, and forward route the received transmission to the foreign terminal in a third time period.

35.   (Original) The communications terminal of claim 34 wherein the first, second and third time period are all different from one another.

36.   (Original) The communications terminal of claim 33 wherein the received transmission is spread with a first code, and wherein the receiver is further configured to despread the received transmission with the first code, the communications terminal further comprising a transmitter configured to spread the received transmission with a second code.

37.   (Original) The communications terminal of claim 33 wherein the controller is further configured to receive feedback from the foreign terminal indicating that the received transmission forwarded to the foreign terminal was received by the foreign terminal.

38.   (Original) The communications terminal of claim 33 further comprising a transmitter, the controller further being configured to forward the received transmission to the foreign terminal by causing the transmitter to transmit the received transmission to the foreign terminal a plurality of times.

39.   (Original) A communications terminal configured to operate in a piconet, comprising:

means for detecting a pilot signal from a foreign terminal;

means for determining the strength of the detected pilot signal;

means for establishing a peer-to-peer connection with the foreign terminal to support communications if the pilot signal strength is below a threshold; and

means for supporting intra-piconet communications.

40.   (Previously presented) The method of claim 1, wherein engaging in intra-piconet communications further comprises:

receiving a pilot signal from a master terminal;

determining that the strength of the pilot signal from the master terminal is below a threshold; and transmitting a pilot signal.

41.   (Previously presented) The method of claim 40, further comprising establishing a new piconet in response to a foreign terminal requesting synchronous communication.

42.   (Previously presented) The communications terminal of claim 20, wherein the receiver is further configured to detect a pilot signal from a master terminal and determine its strength, and the controller is further configured to transmit a pilot signal if the pilot signal from the master terminal strength is below a threshold.

43.   (Previously presented) The communications terminal of claim 42, wherein the controller is further configured to establish a new piconet in response to a foreign terminal requesting synchronous communication.

44.   (New) The method of claim 1, further comprising:

determining that the strength of the pilot signal is above the threshold; and

registering as member of a piconet with the foreign terminal.

45.   (New) The communications terminal of claim 20, wherein the controller further configured to register as a member of a piconet with the foreign terminal to support communications if the pilot signal strength is above the threshold.